



## Example of Exponential Change in Technology



#### World War II

1,500 B-17s One target – 9000 bombs 250 lbs 3,300 ft accuracy





#### **Vietnam**

30 F-4s One target – 176 bombs 500 lbs 400 ft accuracy





#### **Desert Storm**

1 F-117 (clear night) 2 targets – 2 bombs 1000 lbs 10 ft accuracy





## Example of Exponential Change in Technology



#### **Today**

1 B-2 (adverse weather) 16 targets – 16 bombs 19 ft accuracy





#### **Future**

2 F/A-22 (24/7 persistence) 16 targets -16 bombs 15 ft accuracy (greater effects

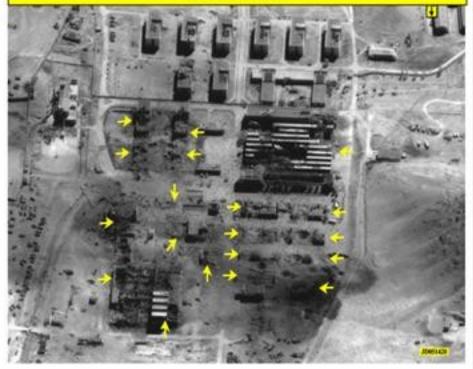




## Exponential Improvement in the Effect



CHARKHI MOTOR VEHICLE AND ORDANCE REPAIR FACILITY,
AFGHANISTAN
POST STRIKE



WWII

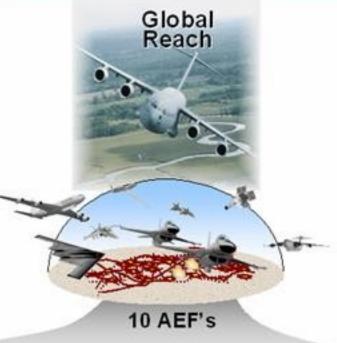
Today



## Airpower Doctrine & Tactics Have Changed as Much as Technology

Global Power





Global Vigilance



Air & Space Expeditionary Task Force Concept of Operations (CONOPS)

Global Strike Capabilities CONOPS Homeland Security Capabilities CONOPS

Global Mobility Capabilities CONOPS Global Response Capabilities CONOPS Nuclear Response Capabilities CONOPS Space/ C4ISR Capabilities CONOPS



## Linking Technology, Doctrine, & Tactics Enabled Integrated Operations in Afghanistan





## Today's Air Force Vision

of Global Vigilance, Reach, and Power





## Because We Have a New Strategic Environment



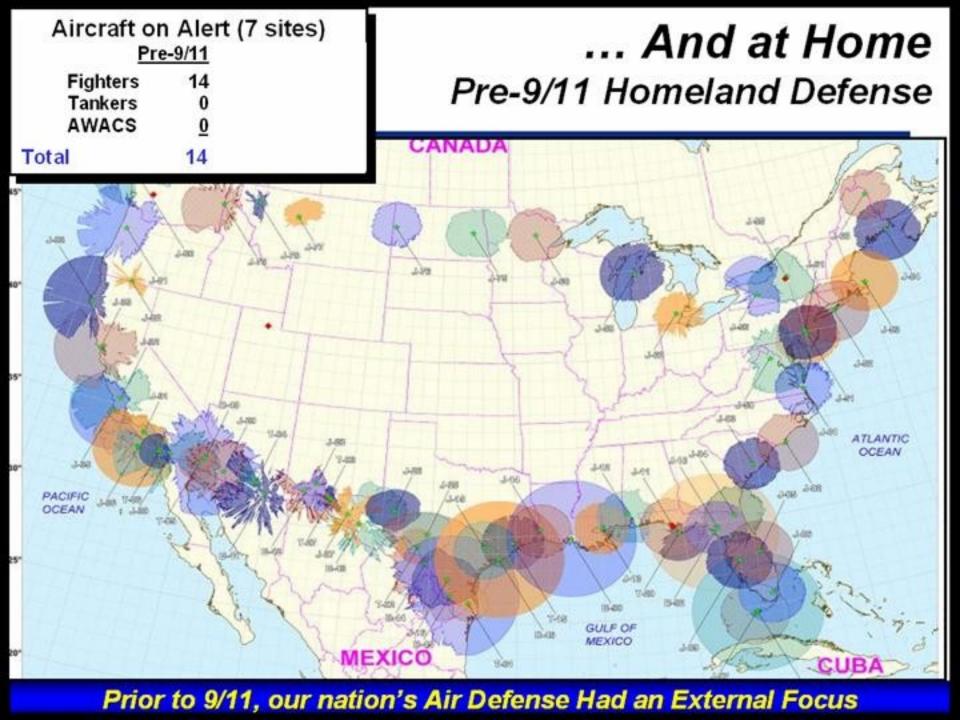
America's Adversaries Have Demonstrated their Willingness to Challenge Us at Home and Abroad -- Make No Mistake The Threat is Reall

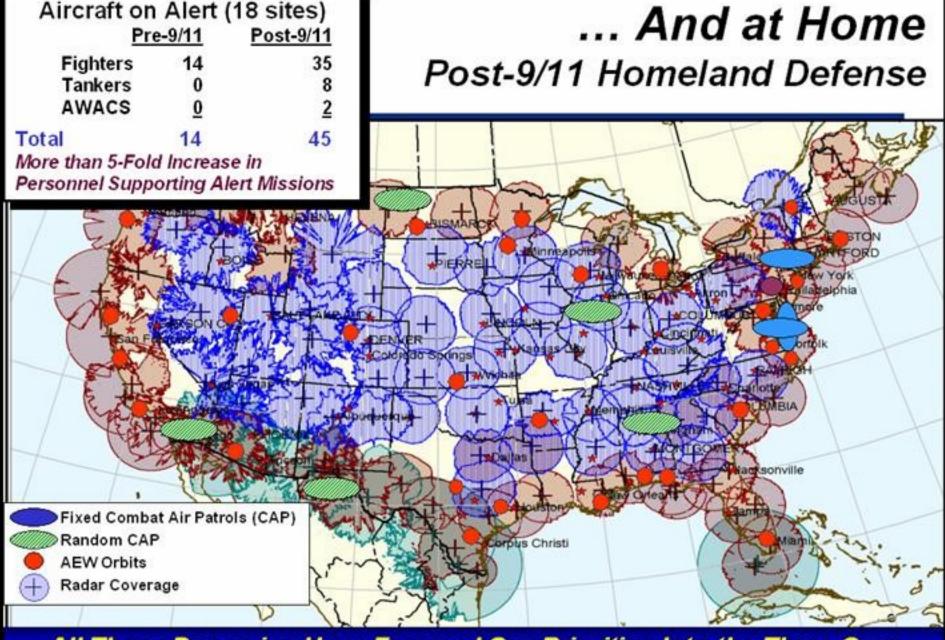


## To Meet These Threats We Increased Our Air Expeditionary Presence

Overseas **Spangdahlem** Geilenkirchen Fairford Rhein Mainu Lakenheath Mildenhallon' Mont De Marsan Incirlik 

Manas **₩**Misawa Osan Moron // Yokota Kunsan Trapani **★** Kadena Sigonella **Andersen** Masirah Curacao Thumrait Clark **Soto Cano** Mactan Zamboanga Diego Garcia **Prince Sultan** Mant





All These Dynamics Have Focused Our Priorities Into the Three Core Competencies for the 2nd Century of Air & Space Power



## Air & Space Core Competencies



- Ensure education, and professional
  - II. Technology to Warfighting -- The tools of Combat Capability
    - Committed to innovation and R&D

## III. Integrating Operations -- Maximizing Combat Capability

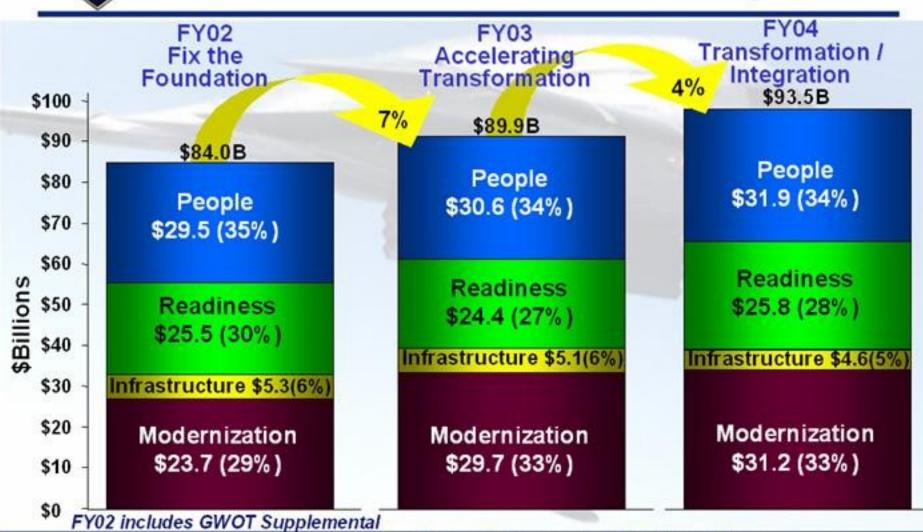
- Efficient integration of systems to maximize support to the joint warfighter
- Our ability to envision, experiment and execute the union of a myriad of platforms to a greater whole is the key to maximizing our capabilities



Our FY04 Budget Supports These Core Competencies By Investing In Our People, Readiness, Infrastructure, and Modernization / Transformation



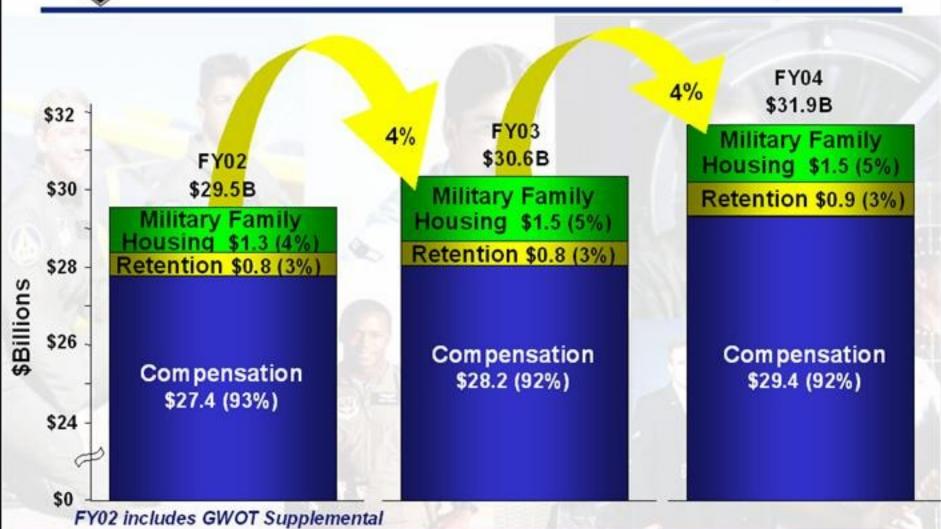
## Air Force Budget FY02 - FY04 Comparison



FY04 Accelerates Transformation / Integration
While Maintaining Gains in Readiness and People Programs



## People FY02 - FY04 Comparison



Continues to Support Our Number 1 Resource - People - With Increases in Pay and Housing Allowance

## Military Family Housing (MFH)

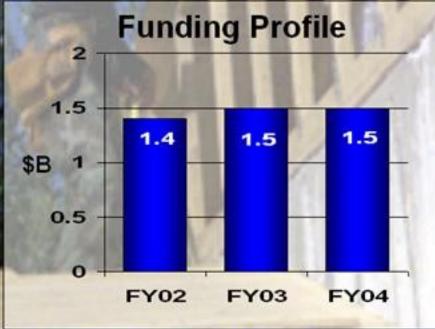
#### **Background**

- MFH consists of 104,000 units
- Funds construction, replacement, improvement, privatization, operations, maintenance, utilities, and leasing of family housing units

#### **FY04 Funding**

- Replaces 2,081 units
- Renovates 1,524 units
- Provides for 7 new projects that privatize and upgrade 6,950 units
- AF will eliminate inadequate housing units in CONUS by 2007 and overseas by 2009





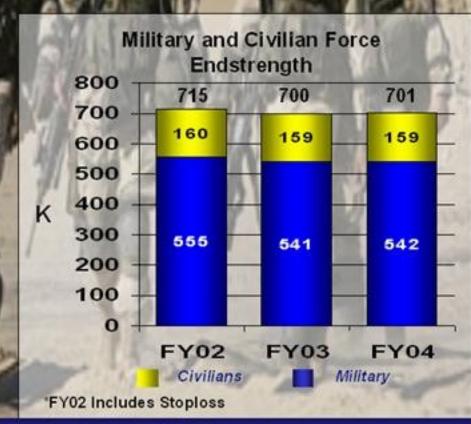
\$1.5B Puts Us On Track to Eliminate Inadequate Housing



- Total force of 701,146
- Military Total of 542,100 (+900)
  - · Active: 359,300 (+300)
  - · Guard: 107,000 (+400)
  - · Reserve: 75,800 (+200)
- Civilian total of 159,046 (+249)

### **FY04 Endstrength**

- Maintained our endstrength at the FY03 levels
- Funding fully supports authorized endstrength



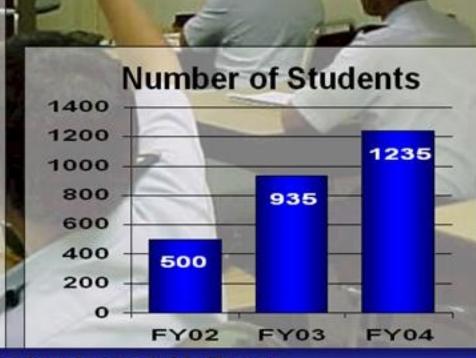
## Developing Airmen AF Institute of Technology (AFIT)

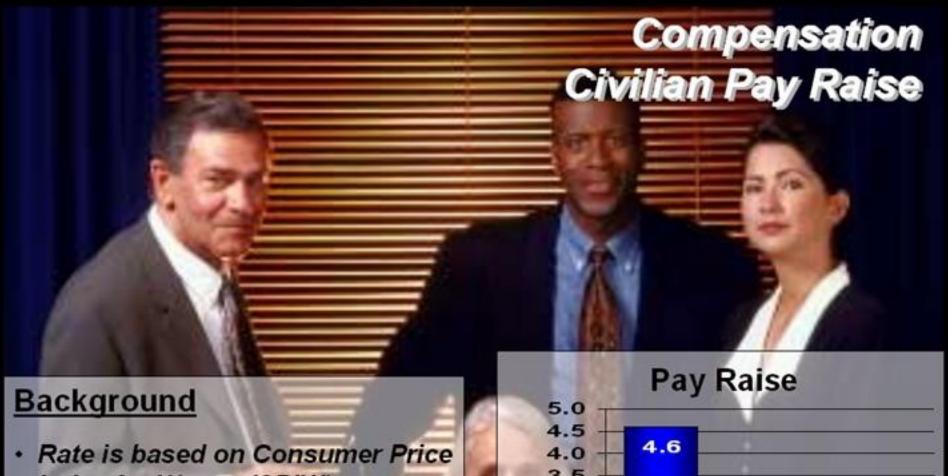
### **Background**

- Increases graduate education from 500 to 2500 by FY09
- Cultivates creative problem solving skills through education and training, on our time, not theirs

#### **FY04 Enrollment**

- In FY04, AF increases on-duty graduate education opportunities from 500 to 1,235
- Formed partnership with Navy for officer post-graduate studies
- Launched a new software development training center
- 1st time -- enlisted personnel to AFIT

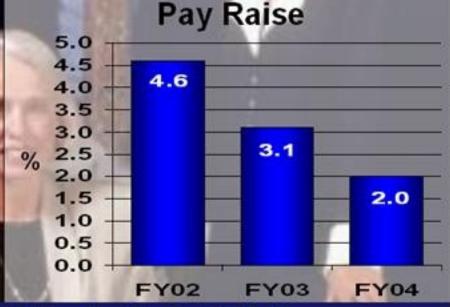




 Rate is based on Consumer Price Index for Wages (CPIW) as a economic measure for salary comparability

#### **FY04 Funding**

· Fully funds 2.0% pay raise



Fully funds a 2.0 Percent Pay Raise for Federal Civilians

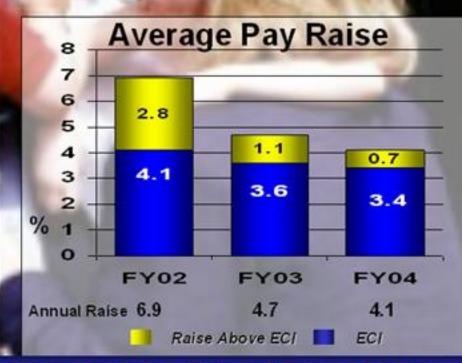
# Compensation Military Pay Raise

### **Background**

- Still continues toward our goal of bringing military compensation closer to private sector
- Third year in a row military compensation raise exceeds Economic Consumer Index (ECI)

### FY04 Funding

 Fully funds an average 4.1% targeted pay raise



AF is a Retention-Based! It takes 17 years to replace a 17 year MSgt

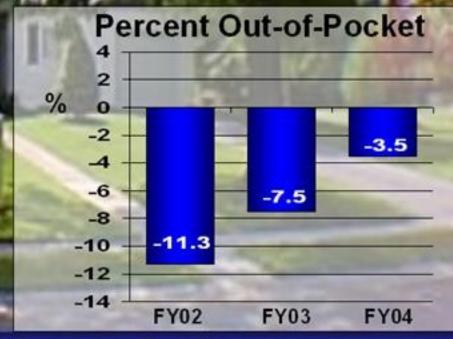
## Compensation Basic Allowance for Housing (BAH)

## **Background**

 SECDEF initiative to reduce out-of-pocket housing expenses to zero by 2005.

## **FY04 Funding**

 Reduces out-of-pocket expenses to 3.5% -- on target for FY05





## Readiness FY02 - FY04 Comparison



FY02 includes GWOT Supplemental



## Space Operations Old Systems = New Problems



Degrading On-Orbit Capabilities



**Obsolete Range Circuitry** 



**Damaged Facilities** 



Deteriorating Minuteman Propulsion & Guidance



Inadequate Bandwidth



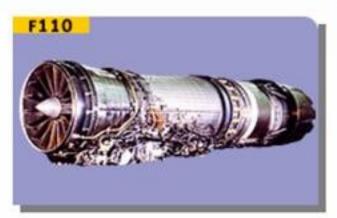
Failing Minuteman Display Units



## Flying Operations Old Systems = New Problems



KC-135 Skin Replacement



**Engine Overhaul** 



EC-135 Landing Gear Failure



KC-135E Engine Strut Corrosion



F-15 Vertical Stabilizer Failure



C-130E Wing Spar Corrosion

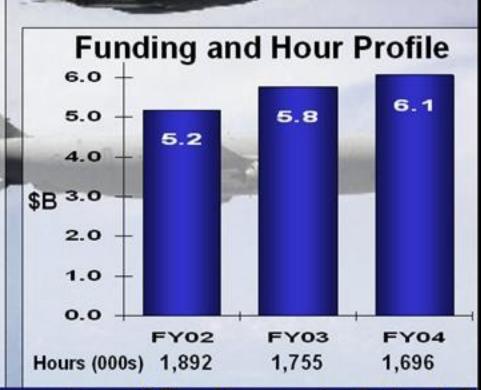
## Flying Readiness



 Funds consumables, reparable spare parts and jet fuel

## FY04 Funding

- Increased funding by \$260M to maintain flying skills/aircrew proficiency training and to support Joint Forces Combatant Commanders
- Cost per hour continues to increase due to aging aircraft



Air Force Flying Hour Program — Cornerstone of Readiness — Includes 1.7
Million Hours Required to Maintain Readiness



## Infrastructure FY02 - FY04 Comparison





## Infrastructure Old Systems = Worsening Problems



Constricted / Corroded Waterlines



Failing Water Mains



Deteriorated Airfield Pavements



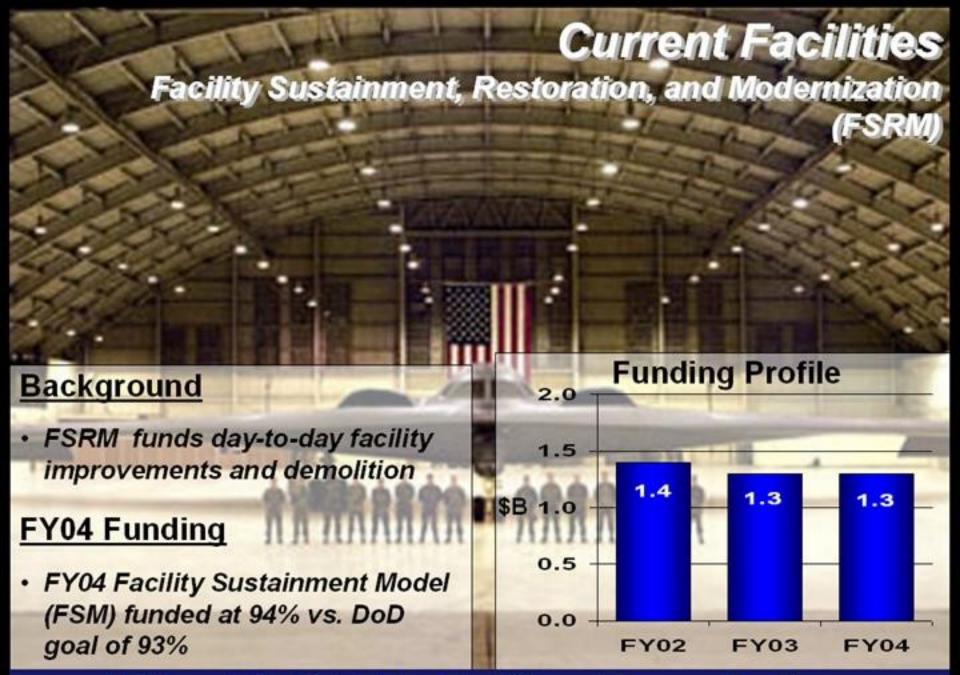
Deteriorated Electrical Systems



Failing Roofs / Building Systems



1960s / 1970s Communications Technology

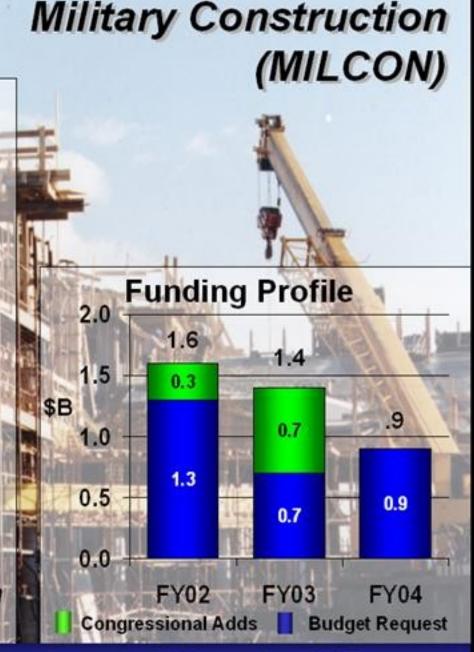


AF Targets \$1.3B to Fixing Facilities and Improve Readiness

 Balances critical new mission beddowns, force structure changes, and quality of life projects

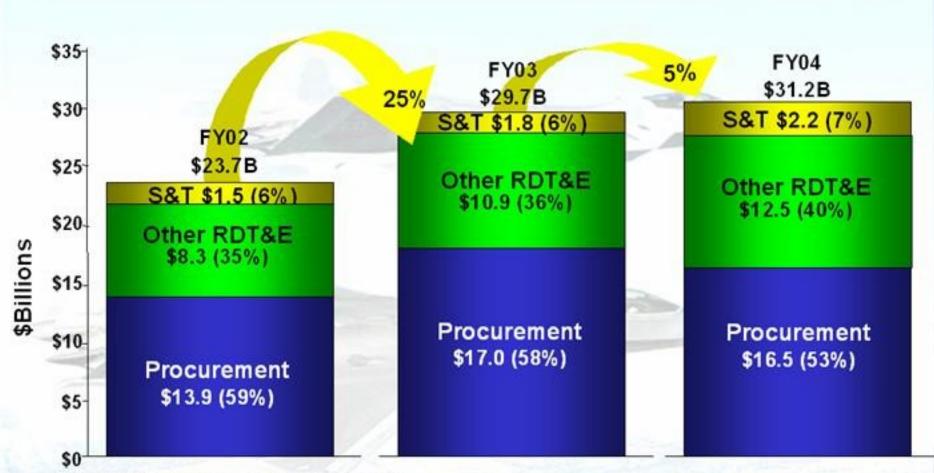
#### **FY04 Funding**

- \$148M more than FY03 PB
- 36% New Mission 45 projects
- 26% Current Mission 26 projects
- 23% Quality of Life (12 dorms, 4 fitness centers, 1 child development center, 1 family support center)
- 15% for design, minor construction and environmental projects





## Modernization / Transformation FY02 - FY04 Comparison



FY02 includes GWOT Supplemental

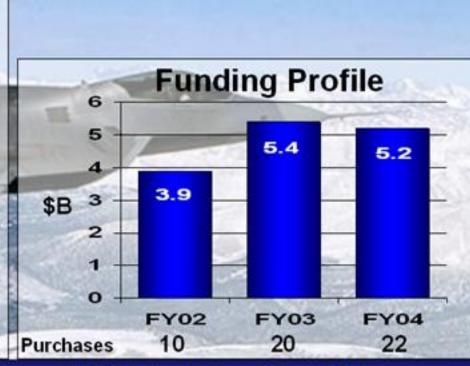
## F/A-22 Raptor

#### **Background**

- 21st century air dominance fighter
- Allows joint and coalition forces to operate with impunity 24/7
- Only aircraft capable of countering anti-access threats on day 1 (including advanced SAMs, cruise missile defense)

#### FY04 Funding

- · Purchases 22 aircraft
- Continues development and test of this transformational aircraft
  - \$371M increase for Engineering & Manufacturing Development funded from within program

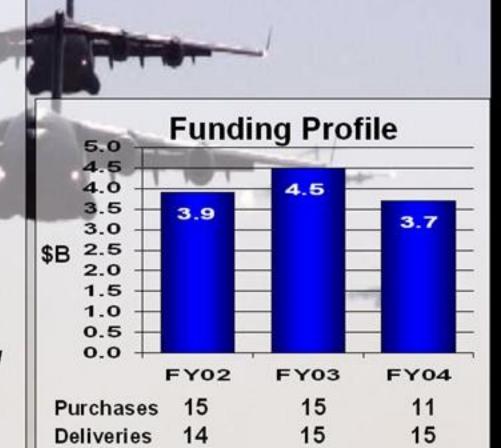


"Buy-to-Budget" Strategy Allows AF to Maximize Aircraft Buy

- Wide-body aircraft capable of airlifting outsized and oversized payloads over intercontinental ranges with or without in-flight refueling
- Provides rapid direct delivery of forces by airland or airdrop into austere tactical environments

#### **FY04 Funding**

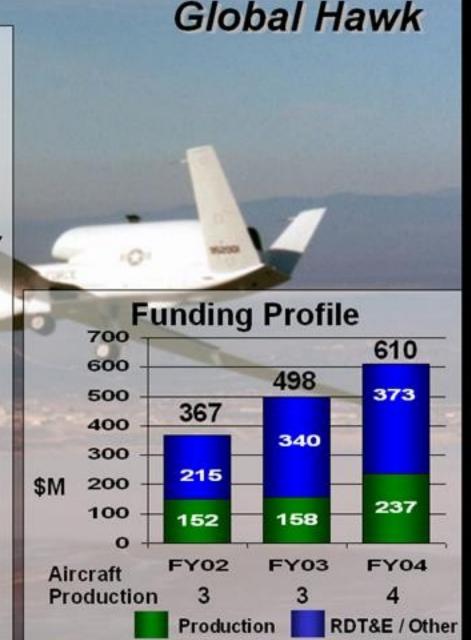
 FY03 appropriation enabled the AF to fund 11 aircraft in FY04 and maintain the planned economic production rate of 15 per year



- Unmanned, high altitude, long range aircraft for reconnaissance and persistent theater surveillance
- Improves situational awareness and time critical targeting capability
- Designed to provide up to 40,000 sq. nmi. of imagery per mission

#### **FY04 Funding**

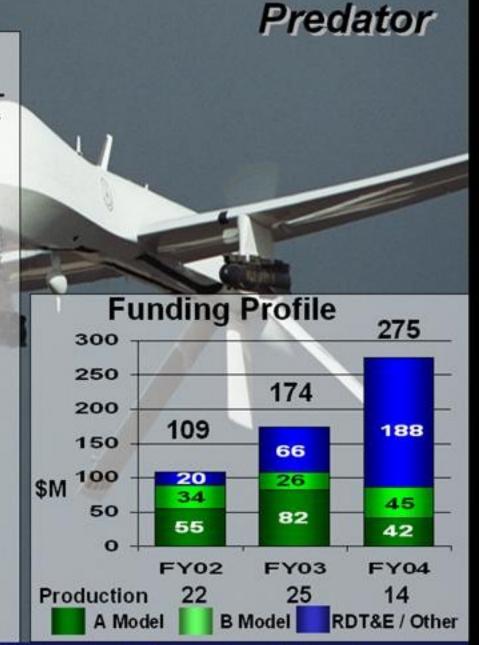
- Continue spiral development and systems engineering to include new sensor capabilities and improved communication system capabilities
- Initial Operational Capability of FY06



- Unmanned, medium-high altitude, longdwell reconnaissance and engagement of time critical targets
- Equipped with multiple sensors capable of transmitting near real-time imagery
- Weaponization incorporates a laser designator and Hellfire missile capability

#### **FY04 Funding**

- Procures 10 Predator As and 4 Predator Bs
- Adds \$23M for procurement of 280 Hellfire missiles
- Continue spiral upgrade for Predator B
- Lay ground work for three additional Predator squadrons



Hunter-killer, Reconnaissance, Surveillance, and Target Acquisition Asset

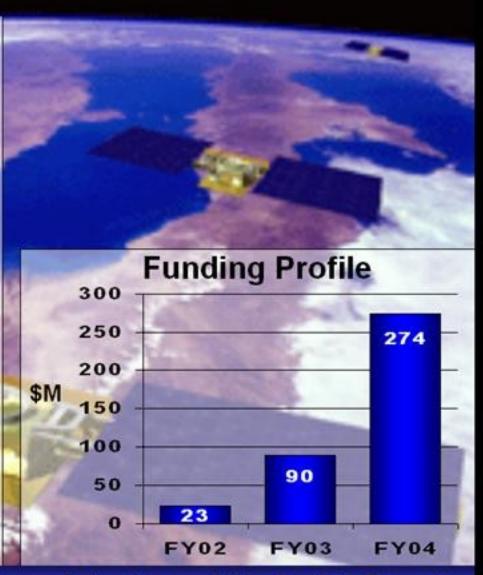
## Space Based Radar (SBR)

#### Background

- Global 24/7 all-weather coverage
- Tracks Ground moving targets
- Synthetic Aperture Radar imaging
- High resolution terrain data

#### FY04 Funding

- Continues risk reduction activities
- Completes Concept Definition including system engineering; system architecture; radar development analysis; and software architecture activities
- First launch in 2012



Day and Night, All Weather Detection and Tracking of Worldwide Targets

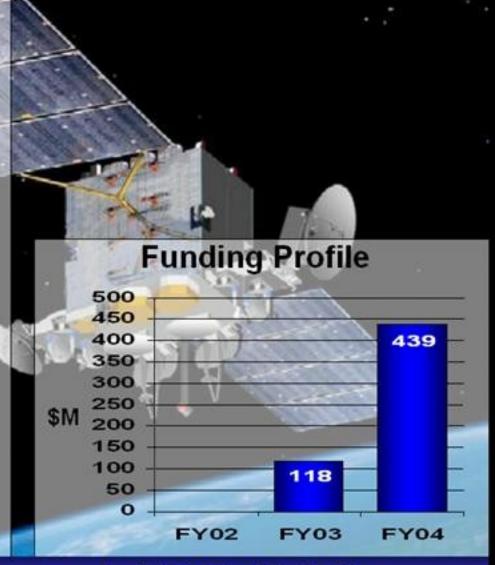
## Transformational Communications

### **Background**

- Provides warfighter wideband, protected, and strategic communication
- TC provides 10x capacity and 100x connectivity
- Laser comm will increase throughput

#### FY04 Funding

- Supports continued studies, technology maturation, and system definition
- Supports five satellite constellation
- First launch in 2009



Removes Communication as a constraint to the Warfighter

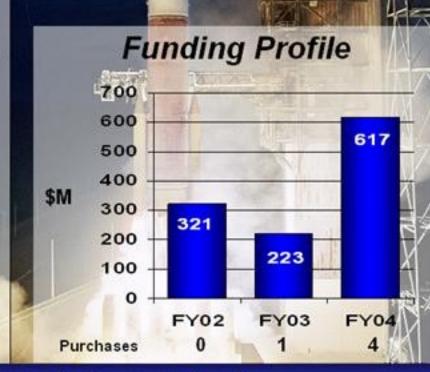
# Evolved Expendable Launch Vehicle (EELV)

## Background

- Replaces legacy launch vehicles with two launch service providers (Boeing-Delta IV and Lockheed Martin-Atlas V)
- Includes standardized launch pads and payload interfaces

## FY04 Funding

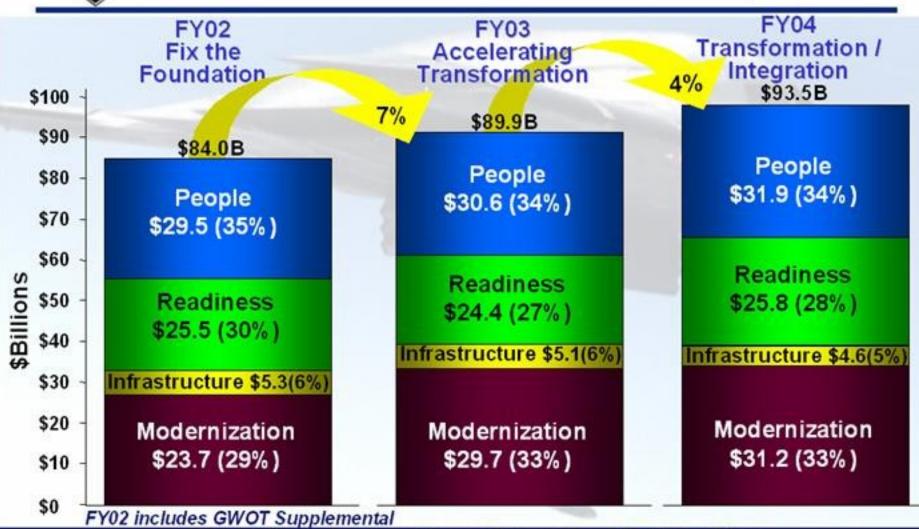
- Funds four launch services
- Provides capability to maintain assured access to space
- Supports Delta IV Heavy Lift Vehicle launch planned for FY04



Next Generation Space Superiority Launch System



## Air Force Budget FY02 - FY04 Comparison



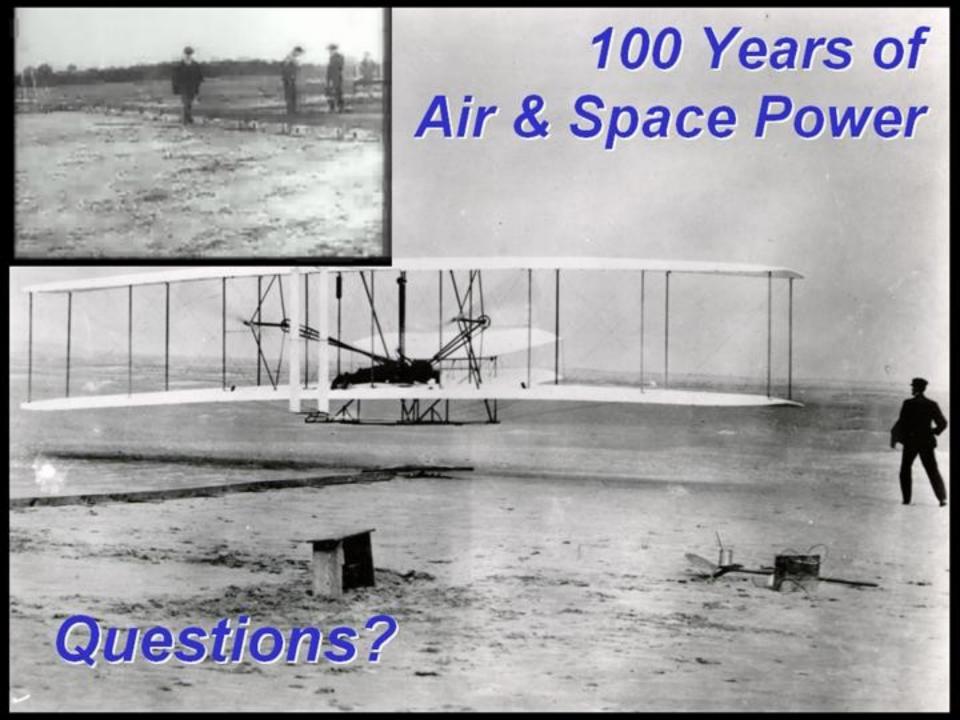
FY04 Accelerates Transformation / Integration
While Maintaining Gains in Readiness and People Programs

## The FY04 Budget Summary

## Transforms our AF to meet the new strategic environment by:

- Developing our Airmen,
  - Accelerating delivery of technology to the warfighter, and
    - Integrating diverse capabilities into seamless operations

So your United States Air Force remains the world's greatest air & space force through the 2nd century of powered flight







## U.S. AIR FORCE